Section 7 Sevier River Basin REGULATION/INSTITUTIONAL CONSIDERATIONS

Section Seven Sevier River Basin - State Water Plan

Regulation/Institutional Considerations

Regulations are required to avoid or resolve conflicts as they arise and for the protection of water users.

7.1 INTRODUCTION

This section discusses the regulations to protect and manage the water resources in the Sevier River Basin. It also discusses the environmental concerns.

The amount of arable land far exceeds the surface water supply. This has led to long, drawn-out and costly litigation so local irrigators could settle water disputes and arrive at a definition of their respective water rights. This process became increasingly complex and difficult with community growth, stream discharge fluctuations, and the added fact that litigation was filed in three judicial districts, depending on location of use.

The mission of Utah's water-related regulatory agencies is to provide orderly water rights administration, adequate good quality water supplies and an environment to meet the needs of the people. This is carried out by several agencies, primarily the divisions of Water Rights, Water Quality and Drinking Water,

7.2 SETTING

There is extensive regulation of the water resources throughout the Sevier River Basin. River commissioners regulate the use of water at the local level. Water masters and ditch riders operate the systems within each irrigation company. Cities and towns operate the community systems. Various types of entities administer and manage water delivery.

Local Entities - The health aspect of water is a concern. The Central and the Southwest Utah Boards of Health are involved at the local level in health-related water matters. They carry out state regulations and local policy related to wells, their construction, and septic tanks and their effects on water quality.

Department of Natural Resources - This state agency is concerned with water resources and their relationship to the environment. The Division of Water Rights is responsible for water allocation, distribution, dam safety and stream channel alteration. The Division of Water Resources regulates the cloud seeding program and is responsible for state water resources planning and development. The Division of Wildlife Resources is responsible for water-related wildlife habitat and aesthetics and the Division of Parks and Recreation enhances water-based recreational activities. See Sections 9, 14 and 15, respectively.

Department of Environmental Quality - This state agency has primary responsibility for water quality. The Division of Drinking Water ensures everyone has a high quality, dependable source of culinary water. The Division of Water Quality regulates the quality of streams, lakes and groundwater. The activities of these two agencies are discussed in Section 11, Drinking Water and Section 12, Water Quality.

Federal - Federal agencies also have responsibilities for water quality and environmental concerns. The Environmental Protection Agency has federal responsibility for water quality through the federal Clean Water Act and the Safe Drinking Water Act although the state of Utah has primacy for carrying out these regulations. The Fish and Wildlife Service has a role in protecting water-related environments, particularly where they affect endangered fish, waterfowl and plants.

There are many types of organizations involved in water delivery to irrigated cropland. In addition to the mutual irrigation companies

described below, there are 13 ditch systems, 12 water user groups and 78 private systems. In general, ditch systems have several owners, water users groups are larger organizations to manage water, and private systems generally consist of only one or two water rights owners.

Other Entities - **Mutual irrigation companies** are the most numerous (about 85) of the water distribution organizations in the Sevier River Basin. They are responsible for most of the water development and delivery. Table 6-2 lists those serving more than 1,000 acres. These companies are formed under the state corporation code, are all nonprofit organizations, and are governed by boards of directors. Stockholders have the right to a quantity of water and they pay the expenses of their company's operations proportional to the number of shares they hold.

Water conservancy districts are formed by a district court in response to a formal petition from residents of an area. A board of directors is appointed by the county legislative body when the district is in only one county and by the governor with the advice and consent of the Senate when the district covers more than one county. Conservancy districts have broad powers. They include constructing and operating water systems, levying taxes and contracting with government entities. Districts cover both incorporated and unincorporated areas. There are five water conservancy districts in the basin; Sanpete County, Millard County, Upper Sevier River, Kane County, Central Iron County and Central Utah. The Upper Sevier River Water Conservancy District covers Garfield and Piute counties and the Central Utah Water Conservancy District covers Garfield, Juab, Piute and Sanpete counties.

Special service districts have many of the same duties and authorities as other districts and can be created by either counties or municipalities. They can be established to provide water, sewer, drainage, and flood control, as well as non-water related services. There are 16 special service districts in the Sevier River Basin.

Drainage districts deal with problems created by high water tables in areas where natural drainage conditions inhibit farming or other operations. There are four drainage districts in Millard County, one in Sanpete County and seven in Sevier County.

City water departments are established by cities and towns to provide water service to residents. Some provide secondary as well as culinary water supplies.

7.3 WATER RIGHTS REGULATION

Utah's statutory water rights law is contained in the *Utah Code Annotated, (UCA) Title 73.* Water rights are administered by the State Engineer and are based on the doctrine of prior appropriation. The Division of Water Rights has a regional engineer based in Richfield.

The State Engineer is responsible for determining whether there is unappropriated water and if additional applications will be processed. This is accomplished through data analysis and consideration of public input. Before approving an application to appropriate water, the State Engineer must find; 1) There is unappropriated water in the proposed source, 2) the proposed use will not impair existing rights, 3) the proposed plan is physically and economically feasible, 4) the applicant has the financial ability to complete the proposed works, and 5) the application was filed in good faith and not for the purpose of speculation or monopoly. The State Engineer will withhold action on or reject an application if he determines it will interfere with a more beneficial use of water or prove detrimental to the public welfare or the natural resources environment. The State Engineer has determined that all of the water in the Sevier River Basin has been appropriated.

Utah water law allows changes in the point of diversion, place of use and/or nature of use of an existing right. To make any change, the water user must file a change application with the State Engineer who will approve or reject the application depending on whether it will impair other rights. If this is the case, compensation can be made or conflicting rights may be acquired.

Perfected, decreed or diligence water rights are considered real property. A pending application and stock in mutual water companies are considered personal property. As such, they can be bought and sold on the open market and are a primary source of collateral to finance farm operations.

The 1998 Legislature passed H.B. 302 amending Section 73-l-10 and 73-l-l 1 of the *UCA*. In part, this amendment states "A water right, whether evidenced by decree, a certificate of appropriation, a diligence claim to the use of surface or underground water, or a water user's claim filed in general determination proceedings, will be transferred by deed in substantially the same manner as is real estate." Also, it defines transfer of water rights when a part of the land irrigated is transferred.

The owner of a perfected water right may lose the right if beneficial use ceases for longer than five years. The owner may file for, and be granted, an extension of time to resume use to protect a right not being used.

Recent legislation has revised the time limit for proving up on water rights with respect to public water suppliers. Extensions of time, not exceeding 50 years from the date of approval of the application, may be granted on proper showing of diligence or reasonable cause for delay. Extensions of time beyond 50 years can be made for public entities if it can be demonstrated the water will be needed to meet the reasonable future requirements of the public. Also, the rules for filing a diligence claim have been made more restrictive.

Circleville Diversion

A provision in the state constitution (Article XI, Section 6) prohibits municipalities from selling or otherwise disposing of any water rights they hold. The only exception is if they trade for other water rights of equal or greater value. Municipalities are still subject to forfeiture for five years of nonuse.

In the appropriation process, the State Engineer analyzes the available data and, in most cases, conducts one or more public meetings to present findings and receive input before adopting a final policy regarding future appropriation and administration of water within a given area.

Through regulatory authority, the State Engineer influences water management by establishing and/or regulating diversion limitations for various uses and by setting policies on water administration for surface water and groundwater supplies. It is the policy of the State Engineer to allow improved irrigation efficiency but not expansion of acreage.

The Division of Water Rights is responsible for a number of functions in addition to the appropriations process which include; 1) Distribution of water in accordance with established rights, 2) administration of adjudicated water rights under an order of a state district court, 3) approval of plans and specifications for construction of dams and inspection of existing structures for safety, 4) licensing and regulating the activities of water well drillers, 5) regulation of geothermal development, 6) authority to control streamflow and reservoir storage or releases during a flooding emergency, and 7) regulation of stream channel alteration activities. In addition, the State Engineer works with federal agencies on reserved water rights, wetlands and other federal activities where their mandates impact state water law.

The surface waters of the Sevier River Basin were closed to all new appropriations under a Governor's Proclamation dated December 19, 1946. Effective March 19, 1997, the State Engineer closed the Sevier River Basin, except for the western Sevier Desert, to all new

appropriations of groundwater. These two actions applied to the Sevier River and its tributaries but did not include the Pahvant Valley underground reservoir. Future groundwater development will be based on acquiring a valid water right and filing an application for a change in point of diversion and place and purpose of use. Each application will be considered on its own merits. Generally, transfers between groundwater basins will not be allowed.

Pahvant Valley is covered by a separate groundwater policy announced on March 2, 1994. The State Engineer has conducted a hydrologic inventory in Pahvant Valley and has surveyed the uncontrolled artesian wells. At the present time, the groundwater levels are being monitored using a representative sample of wells. A goal has been established to limit the total well withdrawals to 60,000 acre-feet annually using a five-year moving average. Applications for domestic wells are still being accepted. If water mining and quality deterioration still continue, additional restrictions will be considered.

7.4 WATER QUALITY CONTROL

The discharge of pollutants is regulated under the Utah Water Quality.Act (UWQA) found in *Utah Code Annotated, Title 19, Chapter 5.* The Utah Water Quality Board (UWQB) has developed rules, regulations, policies and continuing planning processes necessary to prevent, control and abate new or existing water pollution, including surface water and groundwater. These are carried out by the Department of Environmental Quality, Division of Water Quality. They are described in Section *7* of the *State Water Plan.*

Water quality certification by the state is covered under Section 401 of the federal Water Pollution Control Act, 1977. This act requires state certification on any application for a federal license or permit resulting in discharge into waters, and/or wetlands of the United States. These activities include, but are not limited to the construction or operation of the discharging facilities. Any discharges will comply with applicable state water quality standards and the applicable provisions of the Clean Water Act (CWA). In addition, the UWQB adopted and enforces "Ground Water Protection Regulations." These regulations are building blocks in a formal program to protect beneficial uses of groundwater in Utah.

Three main regulatory concepts are provided. They are to; 1) Prohibit the reduction of groundwater quality, 2) prevent groundwater contamination rather than clean up after the fact, and 3) provide protection based on the differences in existing groundwater quality. There are five significant components; 1) Groundwater quality standards, 2) groundwater classification, 3) groundwater protection levels, 4) aquifer classification procedures, and 5) a groundwater discharge permit system. Statutory authority for the regulations is contained in *Chapter 19-5 of the UCA.*

The groundwater permitting system controls activities affecting groundwater quality. A permit will be required if, under normal circumstances, there may be a release to groundwater. Owners of existing facilities will not be obligated to apply for a groundwater discharge permit immediately if they were in operation or under construction before February 10, 1990. Owners of these facilities will notify the Executive Secretary of the UWQB of the nature and location of their discharge.

These regulations provide for a permit by rule for certain facilities or activities. Many operations pose little or no threat to groundwater quality. Some are already adequately regulated by other agencies. These are automatically extended a permit. Therefore, facilities qualifying under provisions of the Utah Administrative Rules, Section R3 17-6-6.2 will administratively be extended a groundwater discharge permit (Permit by Rule). However, these operations are not exempt from the applicable class total dissolved solids limits or groundwater quality standards.

The authority for CWA, Section 401 certification, commonly known as 401 Water Quality Certification, is carried out through the UWQB by the Division of Water Quality. Whether the Environmental Protection Agency (EPA) administers a CWA program directly or

delegates it to a state (primacy), EPA retains the oversight role to ensure compliance with all rules, regulations and policies.

Local communities are encouraged to set up and carry out a "Local Aquifer Protection Management Plan." They can contact the Division of Water Quality for information.

7.5 DRINKING WATER REGULATION

The Safe Drinking Water Board is empowered to adopt and enforce rules establishing standards prescribing maximum contaminant levels in public water systems. This authority is given by Title 19, Chapter 4 of the *Utah Code Annotated.* The rules and regulations setting drinking water standards were adopted after public hearings. These standards govern bacteriologic quality, inorganic chemical quality, radiologic quality, organic chemical quality and turbidity. Standards are also set for monitoring frequency and procedures.

The Safe Drinking Water Board, through the Division of Drinking Water, also operates under the federal Safe Drinking Water Act. This act sets federal drinking water standards and regulations. The Safe Drinking Water Act was reauthorized and amended in 1996. The act sets up new monitoring procedures that are less stringent than before and authorizes a state revolving loan fund (SRF). Some requirements of the act are more stringent.

Through the 1996 Reauthorized Safe Drinking Water Act, the Drinking Water Board receives funding to establish a Drinking Water State Revolving Fund (SRF). The purpose of the fund is to ensure all drinking water systems within the state are capable of maintaining and protecting the supply of drinking water at an affordable cost. The Drinking Water board expects to receive grants, a portion of which will go into the SRF for project construction. The amounts for project construction are: $9.76 million in 1998, $6.0 million in 1999, $6.5 million in 2000, and between $6.0 million and $6.5 million each year through 2003. The state is expected to provide an additional 20 percent of each appropriation, or a total of $9.8 million, as matching cost-share funds.

In order to make the best use of these funds, considerable planning will be required. To accomplish this, the Drinking Water Board expects to have a portion of its federal appropriations available for regional water systems planning.

The Division of Drinking Water serves as staff for the Drinking Water Board to assure compliance with the standards. At the local level, considerable reliance is placed on public water supply operators. Systems serving more than 800 people are listed in Table 11-3. Systems of this size and larger are required to have a certified operator.

7.6 ENVIRONMENTAL CONSIDERATIONS

Water is an intricate part of our existence and influences many of our activities each day throughout our lives. Water is most often recognized for its place in supporting our life but other values are often ignored or placed in subordinate roles. An adequate quantity and quality of water are needed for maintenance of healthy wildlife populations and habitat. This includes providing instream flows where possible and maintaining wetland areas.

The Legislature recognized the value of instream flows when it approved legislation allowing the Division of Wildlife Resources and the Division of Parks and Recreation to acquire water rights for this purpose. This authority has not been in general use in the Sevier River Basin as normal operation and use of the water resources generally provides the necessary flows. The only instream flow is the one in Manning Creek purchased in connection with Manning Meadow Reservoir and the Elbow Ranch by the Division of Wildlife Resources.

Wetlands are important features in the groundwater recharge and discharge cycles. They also provide flood storage, trap sediment, control pollution, provide food chain support and habitat for fish and wildlife, and recreation.

There are two sources of pollution; geologic and man-caused. Both sources of pollution can adversely affect the surface water and the groundwater quality. Geologic pollution

generally cannot be controlled. Man-caused pollution sources include agriculture, on-site waste treatment systems, solid wastes, mining, oil and gas exploration, and urban runoff. The Sevier River Basin is primarily an agricultural area which may be a source of pollution from pesticides and other chemicals used for insect and disease control.

Groundwater is an important resource and it must be protected. It is much easier to maintain high quality groundwater than to restore it.

Open space is becoming a public environmental concern and its value increases as communities continue to grow. Urban encroachment into the agricultural areas not only detracts from the beauty of open space but increases the potential for groundwater pollution.

The Legislature passed the Quality Growth Act of 1999 to provide assistance to local governments for open space planning. This source of funding should be utilized.

Summer homes near Swains Creek

7.7 PROBLEMS AND NEEDS

More summer homes in the mountain areas and increased home building activity around most communities have resulted in more domestic wells. This is particularly true in the Navajo Lake, Duck Creek, Panguitch Lake areas, on Monroe Mountain and along the Wasatch Plateau above Fairview. There are 900 summer homes in Garfield County alone, mostly in the Sevier River drainage area. Many of these haul their own water but there is still a potential demand for on-site culinary water and waste disposal systems. Increased demands in valley areas include Sevier Valley and Sanpete Valley among others. This is beginning to have an impact on some water rights, especially those affected by return flows.

When more wells are constructed in the valley areas, the increase in discharge lowers groundwater elevations. However, the decrease in downstream flow will be smaller than the volume of water pumped. With a lower water table, there will be an increase in recharge which will come from seepage from the valley floor and from surrounding consolidated rocks. The additional recharge generally will not be in the same area as the discharge so down-gradient springs and wells will be impacted.

With the Sevier River drainage closed to new applications for domestic wells, other sources of water will be in demand. Optimally, communities with a public water supply system will be able to expand their area of service to accommodate some of these extended areas. Otherwise, purchase of other existing water rights will be required. This could be an existing well right or purchase of a share of stock in an irrigation company. Some companies may resist selling stock for use outside their delivery system as it would reduce the carrier water and eventually affect the conveyance efficiency.

Groundwater quality is deteriorating in southern Pahvant Valley, primarily due to increased pumping for irrigation. Depending on the on-farm irrigation efficiency, up to half of the water applied percolates down through the root zone, leaching out salts, and eventually returning to the groundwater reservoir. The total salts leached will vary depending on the nature of the soils and the type of irrigation system used.

7.8 DAM SAFETY

A dam is assigned a hazard rating if the reservoir stores sufficient water where failure may cause loss of life or significant property damage. Hazard ratings measuring the potential effects of failure is either high, moderate or low. This also determines the frequency of inspection. High-hazard dams are inspected yearly;

moderate, every other year; and low, every fifth year. The high hazard dams are described in Table 7-l and shown on Figure 6-l. See Table 8-l and 8-2 for funding information. All of the major reservoir owners have emergency action plans.

Following inspection, the State Engineer may suggest maintenance needs and request specific repairs. He may declare the dam unsafe and order it breached or drained. Efforts are always made to work with dam owners to schedule necessary actions. The State Engineer has outlined design standards in the publication "State of Utah Statutes and Administrative Rules for Dam Safety." Plans and specifications must be consistent with these standards and efforts are made to resolve problems before approval. Dam safety personnel monitor dam construction to insure compliance with plans, specifications and design reports.

The State Engineer is currently assessing the ability of all high hazard dams to pass the Probable Maximum Flood (PMF). The assessment also includes the seismic stability of a dam. High hazard dams are shown in Table 7-l.

Table 7-1
HIGH HAZARD RESERVOIR DAMS

County/Name	Owner	Stream	Height (feet)	Capacity (acre-feet)	Surface Area (acres)
Garfield County					
Panguitch Lake	West Panguitch Irr Co	Panguitch Creek	28	23,730	1,248
Tropic	Tropic-East Fk Irr Co	EF Sevier River	29	1,850	170
Juab County					
Sevier Bridge*	Consol Sevier Brd Co	Sevier River	92	236,145	10,905
Millard County					
Corn Creek DB	Corn Creek Irr Co	Corn Creek	45	89	22
DMAD	DMAD Co	Sevier River	34	10,991	1,199
Gunnison Bend	Deseret & Abr Irr Co	Sevier River	19	5,000	706
Piute County					
Beaver Cr-Upper*	Beaver Creek In & Res Co	Box Creek	58	1,401	62
Beaver Cr-Lower*	Beaver Creek Irr & Res Co	Box Creek	36	231	21
Otter Creek*	Otter Creek Res Co	Otter Creek	40	52,662	2,520
Piute*	Piute Res & Irr Co	Sevier River	90	71,826	2,508
Sanpete County					
Gunnison*	Gunnison Irr Co	San Pitch River	38	20,264	1,287
Nine Mile*	Gunnison Irr Co	Nine Mile Creek	55	3,500	213
Palisades Lake*	Manti Irr & Res Co et al	Six Mile C-Offst	24	780	66
Sevier County					
Cottnw Wash DB	City of Richfield	Cottonwood Wash	50	695	28
Dairy Canyon DB	City of Richfield	Dairy Wash	41	110	10
Glenwood DB	Glenwood Town	Mill Creek	57	200	20
Koosharem*	Koosharem Irr Co	Otter Creek	26	3,858	340
Rocky Ford	Rocky Ford Canal Co	Sevier River	25	1,700	180
Sand H DB	Monroe City	Sand Can	30	80	
Three Creeks	Sevier Valley Canal Co	Three Creeks	22	1,000	160

Source: Division of Water Rights and Division of Water Resources.
Note: An * indicates hazard investigations or remedial work has started.